MANVELYAN, M.G.; BABAYAN, G.G.; ABRAMYAN, A.A.

Thermal dehydration of sodium metasilicate hydrate ($Na_2SiO_3 \cdot 9H_2O$)
Izv. AN Arm.SSR. Khim.nauki 11 no.3:159-167 '58. (MIRA 11:11)

1. Nauchno-issledovatel'skiy institut khimii Sovnarkhoza ArmSSR.
(Sodium silicates) (Dehydration (Chemistry))

MANVELYAN, M.G.; GRIGORYAN, G.O.; GAZARYAN, S.A.

Separatory determination of SO_2, and NO_2, and NO in gaseous mixtures. Izv. AN Arm.SSR. Khim.nauki 11 no.3:169-176 '58. (MIRA 11:11)

1. Nauchno-issledovatel'skiy institut khimii Sovnarkhoza ArmSSR.
(Sulfur dioxide) (Nitrogen oxides)

MANVELYAN, M.G.; MELIK-AKHNAZARYAN, A.F.; KOSTANYAN, K.A.; NALCHADZHYAN, S.O.; YERZNKYAN, Ye.A.; OGANESYAN, S.T.

Passage of grog materials inot glass batch during electric founding of bulb glass. Izv. AN Arm.SSR. Ser.tekhn.nauk 11 no.4:51-69 '58. (Glass manufacture)

MANVELYAN, M.O.; MELIK-AKHNAZARYAN, A.F.; KOSTANYAN, K.A.; MALCHADZHYAN, S.O.; YERZNKYAN, Ye.A.

Deterioration of electrodes in electric glass furnaces. Izv. AN Arm.SSR. Ser.tekh.nauk 11 no.5:69-70 '58. (MIRA 11:11)

1. Khimicheskiy institut AN ArmSSR.
(Glass furnaces) (Electrodes)

MANVELYAN, M.G.; ZAKAHROV, L.A.

Producing portland cement from alumina industry by-products.
Dokl. AN Arm. SSR 26 no.1:33-37 '58. (MIRA 11:5)

1.Chlen-korrespondent AN Armyanskoy SSR (for Zakahrov).
2.Nauchno-issledovatel'skiy institut khimii Sovnarkhoza Armyanskoy SSR.

(Portland cement)
(Aluminum hydroxide)

MANVELYAN, M.G.; BABAYAN, G.G.; SAYAMYAN, E.A.; VOSKANYAN, S.S.

Solubility diagram of the quaternary system Na_2SiO_3 - K_2SiO_3 - NaOH - KOH - H_2O. Report No.1: Solubility diagram of the system Na_2SiO_3 - KOH - H_2O at 0°C. Izv.AN Arm.SSR Khim.nauki 13 no.1: 25-30 '60. (MIRA 13:7)

1. Institut khimii Sovnarkhoza ArmSSR.
(Sodium silicate)
(Potassium hydroxide)
(Systems (Chemistry))

MANVELYAN, M.G.; MAIKHASYAN, E.G.

Change in fireclay refractory material during the cooking of electric bulb glass in electric furnaces. Izv.AN Arm. SSR.Ser.tekhn.nauk. 13 no.1:81-86 '60. (MIRA 13:7)

1. Khimicheskiy institut AN Armyanskoy SSR.
(Glass furnaces) (Refractory materials)

S/171-x/60/013/002-3/001/005
E193/E435

AUTHORS: Manvelyan, M.G. and Yeganyan, A.G.

TITLE: Investigation of Electrodeposition of Metallic Gallium From Aluminate Solutions. Part I

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, Khimicheskiye nauki, 1960, Vol.13, No.2-3, pp.81-90

TEXT: The investigation described in the present paper, Part I, was undertaken to provide experimental basis for electrolytic extraction of gallium from aluminate solutions, obtained during treatment of nephelinic syenites (Part II, see pp.91-99 of the same issue). To this end, the electrodeposition of metallic gallium from the following solutions was studied; $GaCl_3$ solution, 0.003 molar in respect of Ga and 0.08 normal in respect of HCl; $NaGa(OH)_4$ solution, 0.01 molar in respect of Ga and 2.5 to 2.6 normal in respect of NaOH; alkaline, Ga-bearing aluminate solutions with various Al:Ga ratios. Tungsten, platinum and Armco iron were used as the experimental cathode materials; the electrolysis temperature varied between 13 to 29 and 75 to 80°C. The current/voltage curves were plotted for every combination of the variables studied, and the corresponding decomposition potentials

S/171-x/60/013/002-3/001/005
E193/E435

Investigation of Electrodeposition of Metallic Gallium From Aluminate Solutions. Part I

were determined. It was established that the decomposition potential of the Ga-bearing aluminate solution corresponded closely to that of the gallate solution, subjected to electrolysis under the same conditions, with Armco iron used as the cathode material. The conditions under which metallic gallium can be electrodeposited from the solutions studied were also determined. It was found that in the case of Ga-bearing aluminate solutions with the Ga content of up to 0.705 g/l, an Al:Ga ratio of 42:1 and an Al:NaOH ratio of 1:3, metallic gallium is deposited at 0.889 V and a current density of 0.023 amp/cm^2; all other conditions being equal, metallic gallium can be deposited on Armco iron from pure gallate solutions at the same voltage. Lastly, it was established that the current efficiency for electrodeposition of gallium from Ga-bearing aluminate solutions decreases when the Al:Ga ratio increases from 35:1 to 50:1. There are 13 figures, 1 table and 10 references: 3 Soviet, 4 English, 1 German, 1 French and 1 Hungarian.

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S/171-x/60/013/002-3/001/005
E193/E435

Investigation of Electrodeposition of Metallic Gallium From Aluminate Solutions. Part I

ASSOCIATION: Institut khimii Sovnarkhoza ArmSSR
(Institute of Chemistry, Sovnarkhoz, ArmSSR)

SUBMITTED: April 8, 1960

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S/171-x/60/013/002-3/002/005
E193/E435

AUTHORS: Manvelyan, M.G. and Yeganyan, A.G.

TITLE: Cathodic Polarization During Deposition of Gallium From Gallate Solutions. Part II

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR; Khimicheskiy nauki, 1960, Vol.13, No.2-3, pp.91-99

TEXT: In continuation of the work described in Part I (pp.81-90 of the same issue) the present authors studied the polarization overvoltage for electrodeposition of gallium on tungsten, platinum, nickel and Armco iron at 7, 12, 18 and 25°C. The curves obtained by plotting overvoltage η_k against log i, where i denotes the current density, (see Fig.2 and 3) are all characterized by deflection points. This indicates that polarization is probably associated with two processes which can be described by $Ga^{+++} + 3e \rightarrow Ga$ and $H^+ + e \rightarrow H$. The η_k/log i relationship obtained can be described by Tafel's equation $\eta_k = a + b \log i$, with the values of a and b changing at the deflection point. The transfer coefficients of the cathodic reaction α, determined for electrodeposition of metallic gallium on solid electrodes from the temperature-dependence of the

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S/171-x/60/013/002-3/002/005
E193/E435

Cathodic Polarization During Deposition of Gallium From Gallate Solutions. Part II

electrolysis rates, were 0.5 to 0.8 for the first (lower) and 0.4 to 0.55 for the second (upper) portions of the η_k/log i curves. The values of the activation energy for the process (determined from the linear relationship log i versus 1/T) indicated that both electrochemical and concentration polarization take place during electrodeposition of Ga from alkaline gallate solutions on tungsten, platinum and nickel. In the case of deposition of gallium on Armco iron, the formation of a new phase can be inferred from the log i versus 1/T relationship, and polarization is in this case related to the energy of formation of the new phase. There are 5 figures, 2 tables and 13 references: 12 Soviet and 1 German).

ASSOCIATION: Institut khimii Sovnarkhova ArmSSR
(Institute of Chemistry, Sovnarkhoz, ArmSSR)

SUBMITTED: April 8, 1960

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MANVELYAN, M.G.; GRIGORYAN, G.O.; GAZARYAN, S.A.; PAPYAN, G.S.; GRIGORYAN, N.M. MIRUMYAN, R.L.

Simultaneous trapping of sulfur dioxide and nitric oxide of low concentrations by alkalis and carbonates. Report No. 4: Adsorption by magnesium hydroxide. Izv. AN Arm. SSR Khim. nauki 13 no.2/3:101-106 '60. (MIRA 13:10)

1. Institut khimii Sovkharkhoza ArmSSR.
(Sulfur dioxide) (Nitrogen oxide) (Magnesium hydroxide)

MANVELYAN, M.G.; BABAYAN, G.G.; YEDOYAN, R.S.; VOSKANYAN, S.S.

Investigation of the methods of preparing sodium hydrometasilicate containing five water molecules. Izv. AN Arm. SSR Khim. nauki 13 no.2/3:111-116 '60. (MIRA 13:10)

1. Institut khimii Sovnarkhoza ArmSSR.
(Sodium silicate)

MANVELYAN, M.G.; SAYADYAN, A.G.; ABRAMYAN, A.A.; MIKAYELYAN, Dzh.A.; KAPANTSYAN, E.Ye.

Method of decomposing the alkaline calcium hydrosilicate deposit resulting from the treatment of nepheline rocks by the method of Ponomarev and Sazhin. Report No. 1. Izv. AN Arm. SSR Khim. nauki 13 no.2/3:117-127 '60. (MIRA 13:10)

1. Institut khimii Sovnarkhoza ArmSSR.
(Calcium silicate)

MANVELYAN, M.G.; BABAYAN, G.G.; GEVORKYAN, S.V.; ASLANYAN, D.G.

Exchange reaction between calcium metasilicate and sodium carbonate. Izv. AN Arm. SSR. Khim. nauki 13 no.4:235-243 '60. (MIRA 13:12)

1. Institut khimii Sovnarkhoza ArmSSR.
(Calcium silicate) (Sodium carbonate)

MANVELYAN, M.G.; MELIK-AKHNAZARYAN, A.F.; KOSTANYAN, K.A.; NALCHADZHYAN, S.O.; YERZNKYAN, Ye.A.; TATEVOSYAN, K.M.

Melting borosilicate glass in vertical electric furnaces.
Stek.i ker. 17 no.2:5-9 F '60. (MIRA 13:6)
(Glass manufacture)

MANVELYAN, M.G.; ALEKSEYENKO, L.N.; AVETISYAN, M.K.

Using glazes made with "erevanite" and metasilicate in making faience products. Stek.i ker. 17 no.7:28-29 Jl '60. (MIRA 13:7)

1. Chlen-korrespondent AN Armyanskoy SSR.
(Glazes) (Pottery)

MANVELYAN, M.; KOSTANYAN, K.; MKRTCHYAN, L.; BADALYAN, S.

Using lithoidal pumices of the Lusavan deposit as raw material for founding bottle glass. Prom.Arm. 4 no.5:42-45 My '61. (MIRA 14:8)

1. Nauchno-issledovatel'skiy institut khimii Sovnarkhoza Armyanskoy SSR.
(Armenia--Pumice)

27600

S/131/61/000/010/003/004
B130/B101

15.2000

AUTHORS: Manvelyan, M. G., Melik-Akhnazarov, A. F., Rustambekyan, S. F., Badalyan, A. A.

TITLE: High-temperature solar furnace

PERIODICAL: Ogneupory, no. 10, 1961, 465 - 469

TEXT: A solar furnace producing temperatures of up to 2000°C by means of solar radiation is described. The device serves for the thermal treatment of silicates and other high-melting substances, without the disturbing effect of a reducing zone or impurities. The installation consists of a stationary paraboloid reflector and a heliostat. The diameter of the reflecting mirror is 2.015 m, the focal distance 800 mm, the angular aperture of the mirror 61°50'. The heliostat consists of 16 flat mirrors 750 by 620 mm, the position of which is controlled by micrometer screws. The frame on which the mirrors are mounted is moved automatically by a special mechanism in zenith and azimuth direction according to the position of the sun. The furnace consists of a cylindrical steel cup (inner diameter 80 mm, length 60 mm), which rotates by means of a 100 w a-c

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High-temperature solar furnace

motor around its axis, coinciding with the reflector axis. Moreover, the furnace may be moved manually to and fro along this axis. This installation was built jointly with the ENIN AN SSSR (designer R. R. Aparisi). Briquet specimens of silicates with 80 mm diameter and 25 - 30 mm height were molded at 300 - 500 kg/cm^2. The specimens were molten in the solar furnace on their entire surface to a depth of 8 - 12 mm. At the present state of the method, it is possible within 40 - 50 min to obtain 45 - 70 g of melt for the purpose of investigating the physicochemical properties. The melt specimens of highly aluminous refractory materials (of a mullite type) are of light gray color and clearly visible crystalline structure. The volume weight of the mullite obtained in this way is 2.95 - 3.1 g/cm^3 and is slightly higher than that of industrial mullite (2.5 - 2.9 g/cm^3). There are 7 figures, 1 table, and 3 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut khimii SNKh Arm. SSR (Scientific Research Institute of Chemistry of the SNKh Armyanskaya SSR)

MANVELYAN, M.G.; NADZHARYAN, A.K.; AKOPYAN, Z.A.; PILOYAN, E.G.; GAMBARYAN, S.G.; BABAYAN, S.A.

Changes of nepheline syenite and minerals constituting it during their treatment by potassium hydroxide solutions. Izv. AN Arm.SSR. Khim.nauki 14:417-423 '61. (MIRA 15:1)

1. Institut khimii Sovnarkhoza Armyanskoy SSR.
(Nepheline syenite)

MANVELYAN, M.G.

New fields for the use of tuffs. Trudy Lab. vulk. no.20:223-225 '61. (MIRA 14:11)

1. Khimicheskiy institut Akademii nauk Armyanskoy SSR.
(Volcanic ash, tuff, etc.)
(Insulating materials)
(Glass fibers)

MANVELYAN, M.G.; AYRAPETYAN, A.A.; GALSTYAN, V.D.

Production of calcium metasilicate. Report No.1: Production of calcium metasilicate by the desilicification of sodium metasilicate with lime. Izv.AN Arm.SSR.Khim.nauki 14 no.1: 15-26 '61. (MIRA 15:5)

1. Institut khimii Soveta narodnogo khozyaystva Armyanskoy SSR.
(Calcium silicate) (Sodium silicate) (Lime)

MANVELYAN, M.G.; GRIGORYAN, G.O.; GAZARYAN, S.A.; PAPYAN, G.S.; KARAKHANYAN, S.S.; MELIK-ISRAYELYAN, L.S.

Simultaneous recovery of sulfur and nitrogen oxides of low concentration by means of alkalies and carbonates. Report No.6: Effect of inhibitors on the oxidation of calcium sulfite to sulfate by atmospheric oxygen in the presence of nitrogen oxide traces. Izv.AN Arm.SSR.Khim.nauki 14 no.1:27-33 '61. (MIRA 15:5)

1. Institut khimii Soveta narodnogo khozyaystva Armyanskoy SSR.
(Calcium sulfite) (Oxidation) (Inhibition (Chemistry))

MANVELYAN, M.G.; NADZHARYAN, A.K.; AKOPYAN, Z.A.; BABAYAN, S.A.; AREVSHATYAN, M.S.

Change of basic minerals of nepheline syenite rocks during its alkaline treatment. Izv.AN Arm.SSR. Khim.nauki 14 no.3:231-236 '61. (MIRA 14:9)

1. Institut khimii Sovnarkhoza Armyanskoy SSR.
(Nepheline syenite)

MANVELYAN, M.G.; AYRAPETYAN, A.A.; GALSTYAN, V.D.

Production of calcium metasilicate. Report No.3: Production of calcium metasilicate by the removal of silica from sodium-potassium alkali silica solution by the use of lime. Izv.AN Arm.SSR. Khim.nauki 14 no.3:237-242 '61. (MIRA 14:9)

1. Institut khimii Sovnarkhoza Armyanskoy SSR.
(Calcium silicate)

MANVELYAN, M.G.; BABAYAN, G.G.; SAYAMYAN, E.A.; VOSKANYAN, S.S.; OGANESYAN, E.B.

Investigating the solubility in the system Na_2SiO_3 - Na_2CO_3 - H_2O at 25 C. Izv.AN Arm.SSR.Khim.nauki 14 no.4:303-308 '61. (MIRA 14:10)

1. Institut khimii Sovnarkhoza Armyanskoy SSR.
(Sodium silicate) (Sodium carbonate)
(Solubility)

MANVELYAN, M.G.; BABAYAN, G.G.; GEVORKYAN, S.V.; ASLANYAN, D.G.; KARAPETYAN, V.TS.

Study of the system Na_2SiO_3 - Ca $(OH)_2$ - H_2O at 25°C and of the conditions of the adsorption of sodium hydroxide on a calcium metasilicate precipitate. Izv.AN Arm.SSR.Khim.nauki 14 no.4:309-317 '61. (MIRA 14:10)

1. Institut khimii Sovnarkhoza Armyanskoy SSR.
(Calcium silicate) (Sodium hydroxide) (Adsorption)

MANVELYAN, M.G.; KOSTANYAN, K.A.; YERZNKYAN, Ye.A.

Transition of the refractory material of the glass furnace into a vitreous mass during electric melting of glass. Izv. AN Arm. SSR. Ser. tekh. nauk 14 no.5:55-60 '61. (MIRA 15:1)
(Glass furnaces)

MAMVELYAN, M.G.; SARKISYAN, A.S.; SAGATELYAN, G.M.

Synthesis of barium metasilicate. Izv. AN Arm.SSR. Khim.nauki 14 no.5:425-434 '61. (MIRA 15:1)

1. Institut khimii Sovnarkhoza Armyanskoy SSR.
(Barium silicate)

S/171/61/014/006/003/00[illegible]
E075/E136

AUTHORS: Manvelyan, M.G., Khanamiryan, A.A., Bakhchisaraytseva, S.A., Mkrtchyan, N.T. and Taliashvili, B.A.

TITLE: Removal of silicon from pure potassium aluminate solutions

PERIODICAL: Akademiya nauk Armyanskoy SSR. Izvestiya Khimicheskiye nauki, v.14, no.6, 1961, 537-549

TEXT: The object of the present work was to study the effect of factors such as temperature, exposure and caustic modulus of original solution on the removal of silicon from pure potassium aluminate solutions. The apparatus used was a stainless steel autoclave fitted with a stirrer and a heating jacket. The solutions composed of potassium aluminate and potassium silicate were heated at various temperatures (150-225 °C) for 1 to 10 hours. It was found that the increasing temperature leads to a better degree of separation of silicon from the aluminate solutions. The addition of A_2O_3 (2.0-20.0 g/ℓ) to the solution did not increase the degree of separation. The addition of lime gave a

Removal of silicon from pure

S/171/61/014/006/003/005
E075/E136

considerable increase in the separation efficiency via the formation of calcium silicate. The optimal conditions for the removal of silicon from the solutions are as follows: a) temperature 200 °C, treatment 1 hour, CaO added 15 0 g/litre α_{caust} = 1.22 (to obtain alumina of [illegible] 1 (G1) grade containing 0.12% SiO_2); b) temperature 200 °C, treatment 0.5 hours CaO added 20.0 g/litre, α_{caust} = 1.22 (to obtain alumina of G1 grade containing 0.11% SiO_2), c) temperature 200 °C, treatment 2 hours CaO added 15.0 g/litre, α_{caust} = 1.18 (to obtain alumina of higher purity than the grade [illegible] (G_0) containing 0.06% SiO_2) d) temperature 200 °C, treatment 2 hours, CaO 20.0 g/litre α_{caust} = 1.19 (to obtain alumina of higher purity than grade G_c containing 0.025% SiO_2). The proportion of Al_2O_3 in the solutions precipitating out under the above conditions is of the order of 8.77-11.66%. There are 4 figures and 6 tables.

ASSOCIATION: Institut khimii Sovnarkhoza ArmSSR
(Chemistry Institute, Sovnarkhoz Arm SSR)

SUBMITTED: July 15 1961

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MANVELYAN, M.G.; KUZ'MINA, N.I.; VIRABYAN, V.A.

An opaque glaze for electric insulating articles. Stek.i ker. 18 no.5:24-25 My '61. (MIRA 14:5)

1. Chlen-korrespondent Akademii nauk Armyanskoy SSR (for Manvelyan).
(Glazes) (Electric insulators and insulation)

MANVELYAN, M.G.; [illegible], A.F.; MUSTAMBEKYAN, S.F.; BABAYAN, A.A.

High temperature solar furnace. Ogneupory 26 no.10:465-469 '61.
(MIRA 14:11)

1. Nauchno-issledovatel'skiy institut khimii Soveta narodnogo khozyaystva Armyanskoy SSR.
(Solar furnaces)
(Refractories industry)

MANVELYAN, M.G.; SAYADYAN, A.G.; ABRAMYAN, A.A.; MIKAYELYAN, Dzh.A.; KAPYANTSYAN, E.Ye.

Decomposition of alkali-calcium precipitates obtained in the process of treating nephelite rocks by hydrochemical methods. TSvet. met. 34 no.2:56-60 F '61. (MIRA 14:6)
(Hydrometallurgy) (Nephelite)

MANVELYAN, M.G.; BABAYAN, G.G.

All-Union Conference held in Erivan on the chemistry and technology of alumina. TSvet. met. 34 no.3:89-90 Mr '61. (MIRA 14:3)
(Alumina) (Chemistry, Metallurgic—Congresses)

MANVELYAN, M.G.; BABAYAN, G.G.; SAYAMYAN, E.A.; VOSKANYAN, S.S.; OVANESYAN, E.B.

Crystallization of Na_2SiO_3, $9H_2O$ from solutions containing silica, caustic soda and potash. Zhur.prikl.khim. 34 no.10:2154-2158 O '61. (MIRA 14:11)

1. Nauchno-issledovatel'skiy institut khimii Sovnarkhoza Armyanskoy SSR.

(Sodium silicate) (Crystallization)

S/080/61/034/011/008/020
D243/D301

AUTHORS: Manvelyan, M.G., Grigoryan, N.M., Pen'kova, L.F., ~~Grigoryan, G.O.,~~ and Apirina, Ye.G.

TITLE: The use of carbonized calcium metasilicate in producing dry galvanic cells

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 11, 1961, 2455 - 2459

TEXT: In conducting this study the authors wished to study the effect of replacing wheat flour and potato starch, as electrolyte thickeners, by inorganic substances in preparing galvanic cells. Carbonized calcium metasilicate was studied in "КБС-Л-0.5" ("KBS-L-0.5") pocket batteries. The electrolyte paste was prepared as follows from the specification in Table 1: Carbonized calcium metasilicate was added to No. 40 electrolyte, heated to 85-90°C in 5-7 minutes and then cooled to room temperature. 15-20 % of the prescribed starch was added and stirred till it thickened. A homogeneous mixture was obtained by dilution with No. 39 electrolyte. The

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rest of the starch was added together with 20-30 % of No. 59 electrolyte plus a corrosive sublimate before charging the cells. Trials were carried out in the laboratory and in the factory using intermittent and continuous discharge regimes. The batteries using carbonized calcium metasilicate, apart from being cheaper, performed better than the controls save in factory conditions at 50°C, where results were slightly lower than the controls. There are 2 tables, and 5 Soviet-bloc references.

SUBMITTED: October 17, 1960

MANVELYAN, Manvel Gareginovich; MELIK-AKHNAZARYAN, Ashot Fedorovich; KOSTANYAN, Kostan Artavazdovich; NALCHADZHYAN, Suren Oranesovich; YERZNKYAN, Yelena Amayakovna; ARUTYUNYAN, S.B., red. izd-va; GALSTYAN, V., tekhn. red.

[Glass manufacture in electric furnaces]Elektrovarka stakla. Erevan, Armianskoe gos.izd-vo, 1962. 221 p. (MIRA 16:3)
(Glass manufacture) (Electric furnaces)

MANVELYAN, M.; MELIK-AKHNAZARYAN, A.; RUSTAMBEKYAN, S.; KOSTANYAN, K.; TATEVOSYAN, K.

Studying the processes of bottle glass melting in electric glass furnaces with Lusavan perlites as base. Prom.Arm. 5 no.3:39-42 Mr '62. (MIRA 15:4)

1. NIIKhimii Sovnarkhoza Armyanskoy SSR.
(Armenia—Perlite (Mineral)) (Glass manufacture)

MANVELYAN, M.; KOSTANYAN, K.; YERZNKYAN, Ye.

Use of Dzhermuk quarzite as raw material for the manufacture of bottle glass. Prom.Arm. 5 no.10:52-54 O '62. (MIRA 15:11)

1. Institut khimii Soveta narodnogo khozyaystva ArmSSR.
(Dzhermuk region—Quarzite)
(Glass manufacture)

MANVELYAN, M.; MANUKYAN, R.; DAVYDOVA, N.; MIKAYELYAN, V.

White opaque glaze with a base of nepheline syenites. Prom.Arm. 5 no.12:39-40 D '62. (MIRA 16:2)

1. Institut khimii Soveta narodnogo khozyaystva Armyanskoy SSR.
(Glazes) (Armenia—Syenite)

MANVELYAN, M.G.; GEVORKYAN, S.V., kand.tekhn.nauk; BABAYAN, G.G., kand. khimicheskikh nauk

Methods of preparation and uses of calcium metasilicate. Zhur. VKHO 7 no.1:91-93 '62. (MIRA 15:3)

1. Chlen-korrespondent Akademii nauk Armyanskoy SSR (for Manvelyan). (Calcium silicate)

S/171/62/015/005/001/008
E071/E592

AUTHORS: Manvelyan, M.G. and Yeganyan, A.G.

TITLE: Cathode polarization of gallium in gallate solutions at temperatures above the melting temperature of gallium. Communication 3

PERIODICAL: Akademiya nauk Armyanskoy SSR, Izvestiya. Seriya khimicheskikh nauk. v.15, no.5, 1962, 411-414

TEXT: Cathode polarization during the precipitation of gallium from gallate solutions (0.01 M Ga and 2.6 N NaOH) at 30, 40, 50 and 60°C on solid electrodes (Pt, W, Armco iron) was investigated by the compensation method in the vapour with saturated calomel electrode, using a previously described apparatus (Izv.AN ArmSSR, KhN, 13, 91, 1960). Each of the curves relating the potential to the logarithm of the current density consisted basically of three linear sections. These curves depended on temperature: the increase of which led to the decrease of the polarization potential. The coefficients of transfer of electrode processes were found to be in the range 0.75-2.02 for the first section of the curves, 0.22-0.57 for the second and 0.2-1.01 for the third section. Plotting $\log_e I$ vs. 1/T (where I velocity of

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electrochemical processes, T - absolute temperature) at a constant potential, a smooth and gradual transition of the phase, chemical and concentration polarizations on platinum and tungsten and phase polarization on Armco iron cathodes was observed. There are 4 figures.

ASSOCIATION: Institut khimii Sovnarkhoza ArmSSR
(Institute of Chemistry of Sovnarkhoz ArmSSR)

SUBMITTED: August 15, 1962

S/171/62/015/006/001/006
E021/E492

AUTHORS: Manvelyan, M.G., Yeganyan, A.G.

TITLE: Cathodic polarization during the deposition of gallium from aluminate solutions. 4th Report

PERIODICAL: Akademiya nauk Armyanskoy SSR. Izvestiya. Khimicheskiye nauki, v.15, no.6, 1962, 501-510

TEXT: The electrodeposition of gallium direct from aluminate solutions with an Al:Ga ratio of 35:1 and 25:1 and an Al:NaOH ratio of about 1:3 was studied. Solid electrodes of platinum, tungsten nickel and armco iron were used for the deposition which was carried out between 0 - 20 and 30 - 60°C. Within 0 to 20°C the graph relating log current density to overpotential consisted of two parts obeying the Tafel equation. The values of the transport coefficient of the electrode processes were found to be within the limits of 0.46 to 0.8 for the first part of the curve and 0.35 to 0.45 for the second part depending on the cathode material. These results were similar to those pertaining to pure gallate solutions at temperatures up to 25°C. The cathode potential-log. current density curves at 30, 40, 50 and 60°C consisted of three

Cathodic polarization ...

linear portions, the values of the transport coefficients being within 1.51 to 0.5 for the first portion, 0.58 to 0.33 for the second portion and 0.46 to 0.11 for the third portion. The values for the second portion were in good agreement with those for the second part of curves obtained during deposition of gallium from pure gallate solutions up to 25°C. The values of the effective activation energies showed that both electrochemical and concentration polarisation took place during electrodeposition of gallium on platinum, tungsten and nickel from aluminate solutions at 0 to 60°C. The process depended on the time of the discharge of gallium and/or hydrogen ions and their rate of diffusion. The change in energy of activation in relation to the change in polarisation at 0 to 20°C was lower in comparison with pure sodium gallate solutions at 7 to 25°C, which was attributed to the change in the energy barrier produced by the hydrated anions. The increase in the effective activation energy at 30 to 60°C was explained by convection. It was also shown that during electro-deposition of gallium on armco iron at 0 to 60°C, a new phase was formed during electrocrystallisation. Polarisation in that case depended on the energy of formations of this new phase. There

Cathodic polarization ...

S/171/62/015/006/001/006
E021/E492

are 6 figures and 2 tables.

ASSOCIATION: Institut khimii Sovnarkhoza ArmSSR
(Institute of Chemistry Sovnarkhoz ArmSSR)

SUBMITTED: August 20, 1961

Card 3/3

MANVELYAN, M.G.; TER-ZAKHARYAN, S.M., starshiy nauchnyy sotrudnik

Study of the change in the content of alkalis during electric melting of light-bulb glass. Stek.i ker. 19 no.12:13-15 D '62. (MIRA 16:1)

1. Institut khimii Soveta narodnogo khozyaystva Armenii.
2. Chlen-korrespondent AN Armyanskoy SSR (for Manvelyan).
(Glass manufacture—Chemistry)

MANVELYAN, M.G.; SAYADYAN, A.G.; ABRAMYAN, A.A.; MIKAYELYAN, D.A.; MOSINYAN, F.G.; KAPANTSYAN, E.Ye.

Method of decomposing the alkali-calcium precipitate obtained in the process of treating nepheline rocks by hydrochemical methods. TSvet. met. 35 no.4:46-49 Ap '62. (MIRA 15:4)
(Nepheline) (Leaching)

MANVELYAN, M.G.; KHANAMIRYAN, A.A.; BAKHCHISARAYTSEVA, S.A.;
TALIASHVILI, B.A.; MKRTCHYAN, N.T.

Desiliconizing pure potassium aluminate solutions.
TSvet. met. 35 no.7:45-51 Jl '62. (MIRA 15:11)
(Potassium aluminate)

MANVELYAN, M.G.; KHANAMIRYAN, A.A.; MKRTCHYAN, N.T.; BAKHCHISARAYTSEVA, S.A.; TALIASHVILI, B.A.

Desiliconization of pure potassium aluminate solutions in presence of chemical additives. TSvet. met. 35 no.11:66-74 N '62. (MIRA 15:11)

(Potassium aluminate) (Silicon)

MANVELYAN, M.G.; MIKAYELYAN, G.I.; OGANESYAN, E.B.; OVSEPYAN, E.B.; MANUKYAN, N.A.

Recovery of mineral oils with calcium metasilicate. Khim. i tekh. topl. i masel 8 no.6:33-36 Je '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut khimii Soveta narodnogo khozyaystva Armyanskoy SSR.
(Oil reclamation)
(Calcium silicates)

MANVELYAN, M.; KALAMKARYAN, K.; FINKEL'SHTEYN, B.; VARDANYAN, I.; MALKHASYAN, S.

Production of glass fibers based on complex silicate rocks. Prom. Arm. 6 no.11:54-57 N '63. (MIRA 17:1)

1. Armyanskiy nauchno-issledovatel'skiy institut khimii Gosmetallurgkomiteta pri Gosplane SSSR (ANIIKhIM).

MANVELYAN, M.G.; KOSTANYAN, K.A.; MARGARYAN, A.A.

"Erevanit" as a material for glass melting. Behavior of "erevanit" on heating. Izv. AN Arm.SSR. Khim.nauki. 16 no.3:291-295 '63.
(MIRA 17:2)

1. Institut khimii Soveta narodnogo khozyaystva Armyanskoy SSR.

MANVELYAN, M.G.; BABAYAN, G.G.; GALSTYAN, V.D.; GEVORKYAN, S.V.; ASLANYAN, D.G.

Interaction of aqueous solutions of potassium and lithium carbonates with calcium metasilicate. Izv. AN Arm. SSR. Khim. nauki 16 no.5:437-441 '63. (MIRA 17:1)

1. Institut khimii Soveta narodnogo khozyaystva Armyanskoy SSR.

MANVELYAN, M.G.; KALAMKARYAN, K.G., inzh.; MALKHASYAN, S.G., inzh.; VARDANYAN, I.A., inzh.; FINKEL'SHTEYN, B.I., inzh.

Obtaining alkaline glass fiber on a tuff and pumice sand base. Stek. i ker. 20 no.9:18-20 S '63. (MIRA 17:6)

1. Nauchno-issledovatel'skiy institut khimii soveta narodnogo khozyaystva Armyanskoy SSR. 2. Chlen-korrespondent Armyanskoy SSR (for Manvelyan).

MANVELYAN, M.G.; BABAYAN, G.G.; VOSKANYAN, S.S.; SAYAMYAN, E.A.; OGANESYAN, E.B.

System Na^+, K^+, $SiO_3^{=}$, $CO_3^{=}$ - H_2O at 0 and 25° C.

Zhur. prikl. khim. 36 no.11:2402-2408 N '63. (MIRA 17:1)

MANVELYAN, M.G.; BABAYAN, G.G.; GAZARYAN, S.A.

Infrared absorption spectra of sodium metasilicate hydrates. Izv. AN Arm.SSR.Khim.nauki 17 no.4:375-380 '64. (MIRA 18:6)

1. Nauchno-issledovatel'skiy institut khimii Gosudarstvennogo komiteta tsvetnykh i chernykh metallov pri Gosplane SSSR.

MANVELYAN, M.G.; TALIASHVILI, B.A.

Comparative passage of alkali and aluminum salts into the solid phase during the desilicification of potassium and sodium aluminate solutions. Izv. AN Arm. SSR. Khim. nauki 17 no.6:636-642 '64. (MIRA 18:6)

1. Yerevanskiy nauchno-issledovatel'skiy institut khimii.

MANVELYAN, M.G.; KHANAMIRYAN, A.A.; TALIASHVILI, B.A.; NIKOGOSYAN, B.V.
OLOBIKYAN, L.G.; STEPANYAN, M.G.

Desilicification of sodium-potassium aluminate solutions.
Izv.AN Arm.SSR.Khim.nauki 17 no. 3:283-289 '64.
(MIRA 17:7)

1. Institut khimii Gosudarstvennogo komiteta tsvetnykh i chernykh metallov pri Gosplane SSSR.

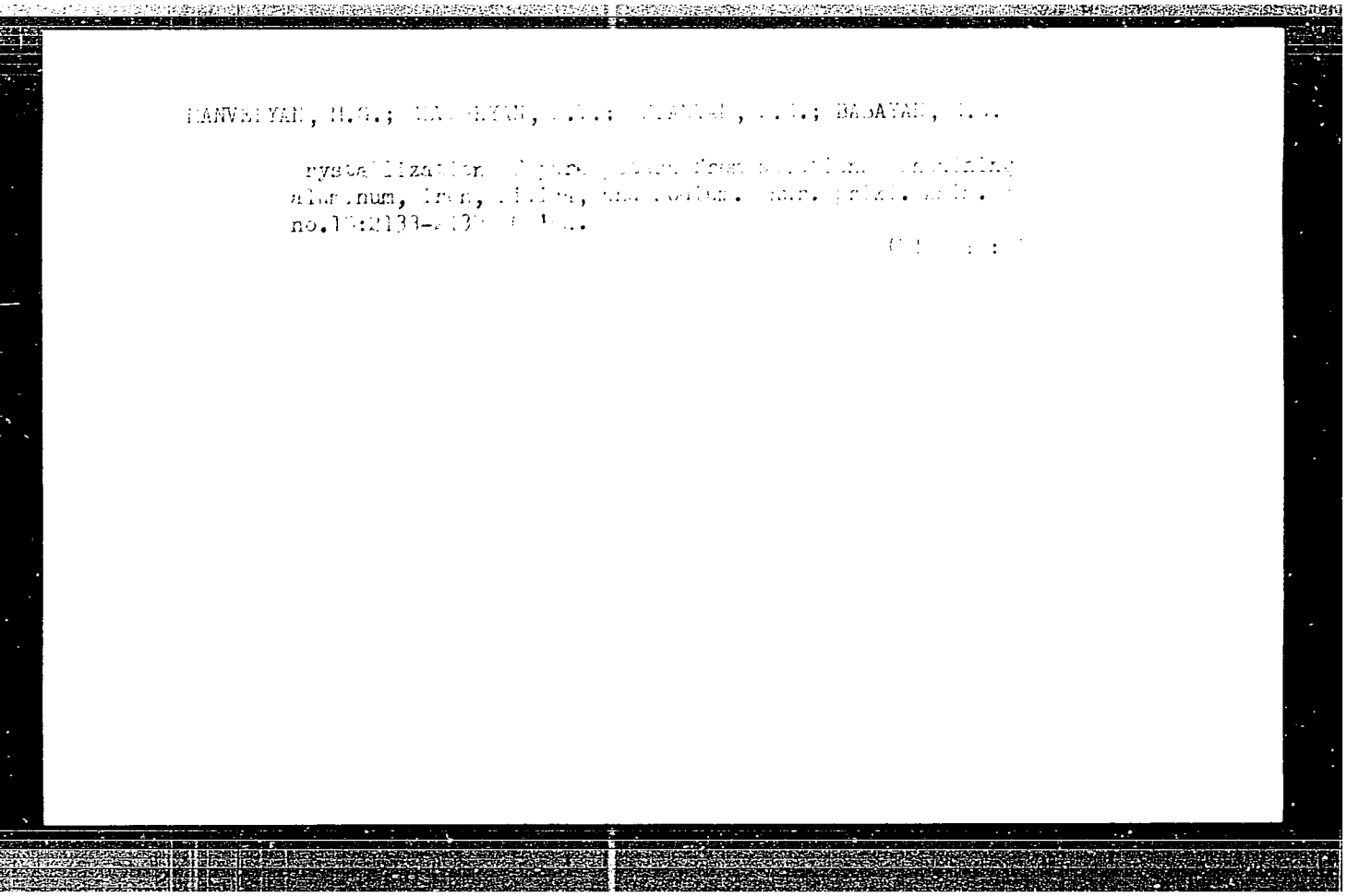
MANVELYAN, M.G.; KALAMKARYAN, K.G.; VARDANYAN, I.A.; FINKEL'SHTEYN, B.I.

Preparing alkali-free glass fiber at the base of local raw materials in Armenia. Stek. i ker. 21 no.9:39-41 S '64. (MIRA 18:4)

1.Nauchno-issledovatel'skiy institut khimii ArmSSR.

MANVELYAN, M.G.; KHANAMIRYAN, A.A.; NIKOGOSYAN, B.V.; STEPANYAN, M.G.

Use of white slime as an active additive especially for desiliconizing potassium aluminate solutions. TSvet. met. 37 no.9:43-46 S '64.
(MIRA 18:7)



MANVELYAN, M.G.; GRIGORYAN, G.O.; KARAKHANYAN, S.S.

Complex processing of table salt. Part 2: Decomposition of ammonium chloride by sulfuric acid with the production of ammonium bisulfate and hydrogen chloride. Izv. AN Arm.SSR. Khim.nauki 18 no.1:92-95 '65. (MIRA 18:5)

1. Yerevanskiy nauchno-issledovatel'skiy institut khimii.

YEDOYAN, R.S.; MANVELYAN, M.G.; BABAYAN, G.G.

Physicochemical studies of the systems containing Na_3AlF_6, K_3AlF_6, and Li_3AlF_6. Part 1: Fusibility diagram of the system Na_3AlF_6—K_3AlF_6. Izv. AN Arm.SSR. Khim.nauki 18 no.1:10-14 '65. (MIRA 18:5)

1. Yerevanskiy nauchno-issledovatel'skiy institut khimii.

MANVELYAN, M.G., akademik; MANUKYAN, R.V., inzh.; DAVIDYANTS, N.S., inzh.

Transparent glazes on a base of "erevanite." Stek. i ker. 22 no.6:14-15 Je '65. (MIRA 18:6)

1. Yerevanskiy nauchno-issledovatel'skiy institut khimii Gosudarstvennogo komiteta khimicheskoy promyshlennosti pri Gosplane SSSR.

TATEVOSYAN, K.M., inzh.; MANVELYAN, M.G., akademik; MELIK-AKHNAZARYAN, kand, tekhn. nauk

Investigating the volatilization of fluorine during the manufacture of opal glass. Stek. i ker. 22 no.8:10-12 Ag '65. (MIRA 18:9)

1. Yerevanskiy nauchno-issledovatel'skiy institut khimii Gosudarstvennogo komiteta khimicheskoy promyshlennosti pri Gosplane SSSR.
2. Akademiya nauk Armyanskoy SSR (for Manvelyan).

MANVELYAN, M.G.; GEVORKYAN, L.E.

Production of ultramarine on the basis of albite after its alkaline pretreatment. Zhur. prikl. khim. 38 no.7:1463-1466 Jl '65. (MIRA 18:7)

ACC NR: AP6027260 SOURCE CODE: UR/0072/66/000/006/0006/0009

AUTHOR: Tatevosyan, K. M. (Engineer); Manvelyan, M. G. (Academician AN ArmSSR); Avsharova, S. N. (Engineer)

ORG: Yerevan Scientific Research Institute of Chemistry (Yerevanskiy nauchno-issledovatel'skiy institut khimii)

TITLE: Volatization of boric anhydride during the founding of glasses

SOURCE: Steklo i keramika, no. 6, 1966, 6-9

TOPIC TAGS: borate glass, glass property, nonstructural mineral product

ABSTRACT: Volatization of boric anhydride from alkali-free glass "E" (Al_2O_3 introduced either as alumina calcined at 1200°C or as clay) and from alkaline glass type ZS-5Na was studied in 0-1400°C and 0-45 hr of heat treatment. All glass samples contained approximately 10 wt % B_2O_3. The samples were heated to the desired temperature at 5°C/min. The results are graphed and tabulated. It was found that volatization of B_2O_3 from alkali-free glasses is completed at 500°C for samples prepared with calcined alumina and is completed at 900°C for samples prepared with clay. It was also found that, as a result of thermal treatment of alkali-free glasses, the B_2O_3 transforms into calcium and magnesium borates which are practically nonvolatile above 1000-1200°C. The greater volatility of B_2O_3 in the alkaline glasses is explained in terms of formation —

UDC: 666.1.031.13:66.046.594

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R001032210018-3"

ACC NR: AP6027260

of alkaline borates. The relative evaporation of B_2O_3 from alkaline-free glasses was: 2% for samples based on alumina and 6% for samples based on clay. For ZS-5Na alkaline glass, only 2% B_2O_3 evaporated below 800°C but then the B_2O_3 evaporation increased sharply to reach 10% at 1400°C. Orig. art. has: 4 figures, 1 table.

SUB CODE: 07,11/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 002

Card 2/2

MANVELYAN, M.G.; NADZHARYAN, A.K.

Composition of the solid phase during the interaction of nepheline syenite with caustic soda solution. Izv. AN Arm. SSR. Khim. nauki 16 no.6:589-599 '63 (MIRA 17:8)

1. Institut khimii Soveta narodnogo khozyaystva Arm.SSR.

MANVELYAN, M.P.

Autohemotherapeutic stimulation of the phagocytic function of the reticulo-endothelial system in synovitis. Izv. AN Arm.SSR. Biol. i sel'khoz. nauki 11 no.8:59-64 Ag '58. (MIRA 11:10)

1. Kafedra obshchey i chastnoy khirurgii Yerevanskogo zoovetinstituta.
(SYNOVIAL MEMBRANES--INFLAMMATION) (PHAGOCYTOSIS)
(BLOOD)

MANVELYAN, M. P.

Pervaia khirurgicheskaia pomoshch sel'skokhoziaistvennym zhivotnym (First aid to agricultural animals) Erevan', Aipetrat, 1959, 79 pages with illustrations. Price 90 k.; 1,000 copies. In the Armenian language.

MANVELYAN, M.P.

Stimulating the absorptive function of the reticulo-endothelial system through tissue therapy in suppurative synovitis. Izv. AN Arm.SSR Biol.nauki 12 no.5:51-58 My '59. (MIRA 12:9)

1. Kafedra obshchey i chastnoy khirurgii Yerevanskogo zooveterinarnogo instituta.

(RETICULO-ENDOTHELIAL SYSTEM)
(SYNOVIAL MEMBRANES--DISEASES)
(TISSUE EXTRACTS)

MANVELYAN, P.G.

Theoretically probable reactions occurring near the anode of an aluminum electrolyzer. Dokl. AN Arm. SSR 41 no. 4:204-209 '65 (MIRA 19:1)

1. Armyanskiy nauchno-issledovatel'skiy gornometallurgicheskiy institut Gosudarstvennogo metallurgicheskogo komiteta SSSR.

MANVELYAN, Rafayel Levonovich; MATEVOSYAN, Sh.M., otv.red.; SHTIBEN, R.A., red.izd-va; AZIZBEKYAN, L.A., tekhn.red.

[Clinical and epidemilogical characteristics of dysentery; as revealed by materials from the Infectious Disease Clinic of the Erivan Medical Institute] Kliniko-epidemiologicheskaia kharakteristika dizenteriinykh zabolevanii; po materialam infektsionnoi kliniki Erevanskogo meditsinskogo instituta. Erevan, Izd-vo Akad.nauk Armianskoi SSR, 1960. 333 p.
(MIRA 13:12)

(ERIVAN--DYSENTERY)

MANVELYAN, V.I., USTINOVA, E.T.

Hosiery

Method of decreasing pulls in caprone stockings.
Leg. prom., No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified

MANVELYAN,V.P., inzhener; YAKUNKINA,V.F., inzhener

Dyeing knit fabrics with vat and indigosol dyes. Leg. prom.15 no.4:32-33 Ap '55. (MLRA 8:7)
(Dyes and dyeing--Chemistry)

GRINEVICH, K.P.; MANVELYAN, V.P.; SOBOLEVSKIY, M.V.

Finishing the pile surface of artificial fur with organosilicon compounds. Plast.massy no.10:51-52 '60. (MIRA 13:12)
(Fur, Artificial) (Silicon organic compounds)

MANVELYAN, V.P.

Dyeing of synthetic fibers with dispersed dyes in cylinder type apparatus. Tekst.prom. 22 no.6:67-69 Je '62. (MIRA 16:5)

1. Zamestitel' glavnogo khimika Vsesoyuznogo nauchno-issledovatel'skogo instituta trikotazhnoy promyshlennosti (VNIITP).
(Textile fibers, Synthetic) (Dyes and dyeing)

MANVELYAN, V.P.; DAVYDOVA, E.I.

Finishing of bulked yarn. Nauch.-issl. trudy VNIITB no. 5: 100-114 '64 (MIRA 19:1)

MANVELYAN, V.P.; NIKIFOROVA, I.I.; SMOLINA, M.G.; IOFFE, N.M.; LOSHCHININA, G.A.; GOLOVANOVA, N.A.

Fiber dyeing and artificial fur finishing. Nauch.-issl. trudy VNIITP no. 5:135-166 '64 (MIRA 19:1)

MANVELYAN, V.P.; PAKSHVER, A.B., prof., doktor khim.nauk

Selecting temperature parameters for the thermal stabilization and dyeing of the "Meron" bulked yarn. Tekst.prom. 25 no.2:10-13 F '65. (MIRA 18:4)

1. Zamestitel' glavnogo khimika Vsesoyuznogo nauchno-issledovatel'skogo instituta torfyanoy promyshlennosti (for Manvelyan). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut steklyannogo volokna (for Pakshver).

MANY, GYULA

HUNGARY/Chemical Technology. Chemical Products and Their Application. Cellulose and Its Production. Paper. H-33

Abs Jour: Ref. Zhur-Khimiya, No 11, 1958, 38345.

Author : Many Gyula
Inst : Not given.
Title : Problems of Producing Sheet Cardboard.

Orig Pub: Papiripar, 1957, 1, No 5-6, 108-109.

Abstract: Describes the various methods of drying cardboard, the advantages and disadvantages of drying in the open air, in cylindrical dryers, and in chamber dryers.

Card : 1/1

MANY, G

HUNGARY/Chemical Technology. Chemical Products and Their Uses. Part IV. Cellulose and Its Derivatives. Paper. H

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 52367

Author : Many, Gyula
Inst : -
Title : Lamellar Cardboard Production. II. Driers.

Orig Pub : Papiripar, 1957, 1, No 7-8, 140-142

Abstract : Channel circulation-type driers in particular were described. Causes of the product's deficiencies, such as cardboard delamination, fibrous structure and thickness variations, were discussed. Drying efficiency and the extent of prior molding were considered. For Report I, see Ref Zhur-Khimiya, 1958, 38345. -- S. Rozenfel'd

Card : 1/1

MANYA, F.

The capacity of three-phase nonsymmetric and nonsinusoidal systems. Rev electrotechn energet 6 no.1:67-73 '61.

(Electric currents)

MANYA, V. [Manea, V.]

On a theory of thin Elastic plane plates without considering the Love-Kirchhoff hypothesis. Rev mec appl 9 no. 2:415-444 '64.

MANYA, V. [Manea, V.]

Nonlinear motion equations of any deformable continuous medium. Rev mec appl 9 no. 1:79-99 '64.

L 53958-65 EWT(d)/EWP(w)/EWA(d)/EWP(v)/EWP(k)/EWA(h) P&-4/Peb WW/EM
ACCESSION NR: AP5008123 R/0019/64/009/002/0415/0444

AUTHOR: Manya, V. (Manea, V.) 18 17B

TITLE: A theory of thin elastic plane layers not containing the Love-Kirchhoff hypothesis

SOURCE: Revue Roumaine des sciences techniques. Serie de mecanique appliquee, v. 9, no. 2, 1964, 415-444

TOPIC TAGS: deformable medium equilibrium, Love Kirchhoff hypothesis, thin elastic plane layer, elastic plate, thin layer bending, analytic function, elasticity calculation

ABSTRACT: Although the Love-Kirchhoff hypothesis leads to significant simplifications in the equilibrium equation of thin elastic plane layers, it introduces contradictions which have been the subject of numerous investigations (see, e.g., E. Reissner, Quart. J. of Appl. Math., 1947, 5, 1; A. L. Gol'denveyzer, K teorii izgiba plastinok, Izd. Akad, nauk SSSR, OTN, 1958, 4; P. M. Naghdi, Applied Mechanics Reviews, 1956, 9, 365-368). This paper, which represents a synthesis of earlier articles by the same author (St. cerc. mec. apl., Acad. R.P.R., 1963, 14, 4; Ibid., 1963, 14, 5), first presents the general derivation

Card 1/2

L 53958-65
ACCESSION NR: AP5008123

of shell equations in the zeroth and first order momentum approximation starting from the exact equation of dynamic equilibrium for continuous deformable media. The equations for plane layers appear as special cases of the general equation. By an appropriate choice of displacement expression, one then obtains a system of five partial differential equations which describe the state of the loaded layers without recourse to the classical Love-Kirchhoff hypothesis. Subsequent parts of this article present the boundary conditions for the bending load situations, give certain elementary illustrative examples indicating the feasibility of an engineering solution of thin plane elastic layer problems, and establish the solution for the case of a static bending load using the method of analytic functions as proposed by N. I. Muskhelishvili (Nekotoryye osnovnyye zadachi matematicheskoy teorii uprugosti, Mat. izd. Akad. nauk SSSR, Moscow, 1954). Orig. art. has: 186 formulas.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: ME

NO REF SOV: 006 OTHER: 006

Card 2/2

L 16291-65 EWT(m)/EWP(w) AEDC(a) EM

ACCESSION NR: AP4049975 R/0019/64/009/005/1135/1154

AUTHOR: Manya, V.

TITLE: Oscillations of elastic thin flat plates in a theory which does not use the Love-Kirchhoff hypothesis

SOURCE: Revue Roumaine des sciences techniques. Serie de mecanique appliquee, v. 9, no. 5, 1964, 1135-1154

TOPIC TAGS: flat plate vibration, bent plate vibration, elastic oscillation, shear force, free oscillation, forced oscillation

ABSTRACT: The author makes use of equations for the dynamic equilibrium of elastic thin flat plates, which were derived without resorting to the Kirchhoff-Love hypothesis in an earlier paper (St. cercet. mecanica aplicata, Acad. R.P.R. 1963, v. 14, No. 4), and constructs a solution for the problem of free and forced oscillations under stationary conditions. It is shown that the general solutions

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ACCESSION NR: AP4049975

lead to computational difficulties, and consequently approximate methods are presented for some particular cases. After calculating the moments and shear forces for the general case, the author considers some practical applications to the case of rectangular flat plates, and to cylindrical bends of elastic thin flat plates. In the latter case the equations are analogous to those describing the vibration of a rod. The results show in the latter case that the effect of inertia of rotation and transverse shear can be evaluated more readily in this method than in the classical formulation. Orig. art. has: 120 formulas.

ASSOCIATION: Institute of Applied Mechanics, Bucharest

SUBMITTED: 00 ENCL: 00

SUB CODE: ME NR REF SOV: 000 OTHER: 002

Card 2/2

C. A.

11F

The adenosine triphosphate content of human blood. Sándor Mányay. (Inst. Med. Chem., Szeged, Hung.). *Kísérletes Orvostudomány* 1, 157-61(1949).—Adenosine triphosphate (ATP) content was detd. in blood samples by a modified Kramer-Pettkó-Straub method (*ibid.* 114). Blood (0.05–0.10 ml.) was treated with 2 ml. acetone, centrifuged, acetone decanted, the ppt. dried, and ATP extd. with 2 ml. distd. H_2O. Blood samples of 48 boys of 9–14 years averaged 33.5 ± 4.6, of 79 adult men 52.9 ± 7.6, and of 24 adult women 43.5 ± 7.0 mg. % ATP. Expts. on rabbits showed that ATP content of blood does not change significantly during heavy phys. work or in convulsions caused by tetracor or insulin. No difference was found between ATP contents of freshly sampled blood and coagulated blood. When blood was frozen and remelted, or simply dild. with distd. H_2O, its ATP disappeared in 2 hrs. Blood seems to decomp. continually its ATP and to resynthesize it by means of enzyme action. The ATP of blood is bound to the cellular elements; the amt. of ATP is proportional to the vol. of cellular elements. The ATP content of blood is considerably lower in persons suffering from certain diseases. István Finály

MANYAI, S. 1951

(Med. Chem. Inst. U. of Szeged)

"Synthesis of ATP in Human Blood."

Acta Physiol (Budapest), 1951 2/1 suppl (1°-19)
No abst. In Exc. Med.

SZEKELY, M.;MANYAI, S.;STRAUB, F.B.

On the mechanism of osmotic hemolysis. Acta physiol. hung. 3 no.3-4:571-584 1952. (CLML 24:5)

1. Of the Medical Chemistry Institute of Budapest University.

MANYAI S., SZEKELY M., and STRAUB F. B.

4717. MANYAI S., SZEKELY M., and STRAUB F. B. Med. chem. Inst., med. Univ., Budapest. * Die Wirkung der Hämolyse auf den Stoffwechsel der roten Blutkörperchen beim Menschen. Effect of haemolysis on the metabolism of human erythrocytes ACTA PHYSIOL. ACAD. SCIENT.HUNGAR. (Budapest) 1953, 4/1-2 (31-44) Graphs 7 Tables 2

The determination of ATP in erythrocytes is described. This permits observation of relationships between ATP content and structure of the cells. For human erythrocytes, osmotic haemolysis does not cause much diminution of the ATP content and the cell membrane remains intact. In haemolysis due to refrigeration the membrane deteriorates and finally liberates a hitherto inactive ATP-ase, which attacks the ATP.

Roulet - Berne

SO: Excerpta Medica, Section II, Vol 7, No 9

MÁNYAI S.

Chem. Inst., med. Univ., Budapest. *Stoffwechselveränderung im Laufe der Entwicklung der Erythrozyten. Metabolic changes during development of erythrocytes ACTA PHYSIOL. ACAD. SCIENT. HUNG. (Budapest) 1954, 5/suppl. (6-7)

SO: EXCERPTA MEDICA - Section II, Vol. 7, No. 10